

**NUCLEIC ACID SEQUENCES AND METHODS FOR IDENTIFYING  
COMPOUNDS THAT AFFECT RNA/RNA BINDING PROTEIN  
INTERACTIONS AND mRNA FUNCTIONALITY**

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**Abstract of the Disclosure**

Disclosed herein are nucleic acid sequences and their optimized subfragments which are located in the mRNA untranslated regions of therapeutically-relevant genes. These sequences specifically bind RNA binding proteins (RBPs) and/or regulate the mRNA functionality. Also disclosed are

10 methods of optimizing a subfragment of a parent nucleic acid sequence such that the RBP binding activity or mRNA functionality of the parent nucleic acid sequence is preserved in the optimized subfragment.

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